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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,166	12/27/2000	Shunpei Yamazaki	0756-2235	4117

31780 7590 04/08/2003

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EXAMINER

NGUYEN, DUNG T

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 04/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/748,166

Applicant(s)  
Yamazaki

Examiner  
Dung Nguyen

Art Unit  
2871



The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Dec 16, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 109-140 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 109-140 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 24 6) ☐ Other:

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***Response to Amendment***

Applicant's amendment dated 12/16/2002 has been received and entered.

***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 109-116, 121-128 and 133-140 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al., US Patent No. 5,550,066, in view of Kondo et al., US Patent No. 5,117,299, as stated in the final office action.

Regarding claims 109, 113, 121 and 125, Applicant contends that Tang and Kondo do not teach or suggest that an insulating layer comprising diamond-like carbon (DLC) forming over an organic insulating layer (amendment, page 9). Applicant also contends that the Examiner's response appears to employ hindsight and lacks an indication why one with ordinary skill in the would have been motivated to substitute the silicon dioxide insulating layer with a DLC film (amendment, page 10). In response to applicant's argument, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re*

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*McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In particular, as stated in the office action dated 09/12/2002, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the Kondo et al. reference to use a DLC film as an insulating layer in the Tang et al. device to produce the claimed invention in order to provide the LCD device with no picture quality deterioration (Kondo et al., column 2, line 41-44). One of ordinary skill in the art would merely find the benefit of using an DLC film as an insulating layer in a display device (e.g., to provide the LCD device with no picture quality deterioration). In other words, one with ordinary skill in the would have been motivated to substitute the silicon dioxide insulating layer with a DLC film in order to take such advantage of the DLC insulating layer in a display device.

In addition, regarding claims 113 and 115, as stated in the last response, Applicant contend that the silicon nitride layer is not disclosed or suggested in either Tang or Kondo (amendment, page 10) and seasonably challenges the Examiner's to cite a reference supporting the rejection (Applicant's amendment, page 11). It should be noted that the Examiner did cited a reference (US 4,705,358) which disclose the use of silicon nitride (instead of silicon dioxide) as an insulating film in a display device is well known in the display art (see office action dated 09/12/2002).

Accordingly, the rejection of the above claims stand.

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*Double Patenting*

9. Claims 109-132 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 90-91 and 97 of U.S. Patent No. 6,115,090, as stated in the previous office action.

10. Claims 109-132 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 8 of copending Application No. 09/295,397, as stated in the previous office action.

Regarding claims 109-128, Applicant contends that claims 90-91 and 97 of US 6,115,090 do not disclose a first organic insulating layer, a second DLC insulating layer over the first insulating layer and a third organic insulating layer over the second insulating layer (amendment, page 11). The Examiner respectfully disagrees with the applicant's viewpoint and respectfully invited the applicant to review claim 83 (cooperated to claim 90) which clearly disclose a first organic insulating layer (a second interlayer insulating film), a second DLC insulating layer (a third interlayer insulating film) over the first insulating layer and a third organic insulating layer (a fourth interlayer insulating film) over the second insulating layer.

Accordingly, the double patenting rejection stand.

*Conclusion*

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

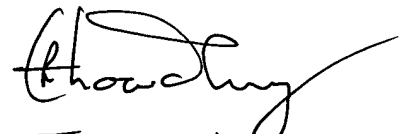
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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423. The fax phone number for this Group is (703) 308-7726.

Any information of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0956.

DN  
04/07/2003

  
T. Chowdhury  
Primary Examiner  
Tech. Center 2800